

[054] In a method of use, where the annulus stent 10 has been inserted into the aperture 44, as has been previously described and shown in FIGs. 12 A-B, an injection instrument, as known in the art, such as a syringe, is used to inject the biocompatible fluid or expansive foam into the internal cavity 62 of the flexible bladder 60. The biocompatible fluid or expansive foam is injected through the annulus stent 10 into the internal cavity 62 of the flexible bladder 60. Sufficient material is injected into the internal cavity 62 to expand the flexible bladder 60 to fill the void in the intervertebral disc cavity. The use of the flexible bladder 60 is particularly useful when it is required to remove all or part of the intervertebral disc nucleus.

Please replace the paragraph starting at page 14, line 11 extending to line 19 with the following amended paragraph:

[055] The surgical repair of an intervertebral disc may require the removal of the entire disc nucleus, being replaced with an implant, or the removal of a portion of the disc nucleus thereby leaving a void in the intervertebral disc cavity. The flexible bladder 60 allows for the removal of only the damaged section of the disc nucleus, with the expanded flexible bladder 60 filling the resultant void in the intervertebral disc cavity. A major advantage of the annulus stent 10 with the flexible bladder 60 is that the incision area in the annulus 42 can be reduced in size, as there is no need for the insertion of an implant into the intervertebral disc cavity.

Please replace the paragraph starting at page 14, line 20 extending to line 20 with the following amended paragraph:

[056] In an alternative method of use, a dehydrated hydrogel is injected into the internal cavity 62 of the flexible bladder 60. Fluid, from the disc nucleus, passes through the semipermeable membrane 64 hydrating the dehydrated hydrogel. As the hydrogel absorbs the fluid the flexible bladder 60 expands, filling the void in the intervertebral disc cavity.

IN THE CLAIMS:

Please delete claims 1-44 without prejudice.

Please add claims 45-48 as follows:

45. An annulus stent for repairing an aperture in an intervertebral disc annulus comprising a centralized vertical extension with an upper section and a lower section, and a recess between the upper section

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